RESEARCH HIGHLIGHT

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Livable Lanes: A Study of Laneway Infill Housing in Vancouver and Other Growing B.C. Communities

The term "laneway housing" or "carriage housing" refers to a detached form of infill housing that is ancillary to a principal dwelling and typically located in a rear yard and oriented towards the lane.

This research presents single-lot, laneway, infill housing as a key part of an overall residential intensification strategy that Canadian municipalities can use to help meet critical housing needs while meeting a range of other key sustainability objectives. Laneway infill housing can occur incrementally without requiring redevelopment or parcel assembly, which can be onerous in time and expense.

With a focus on Vancouver, this research establishes opportunities for expanding laneway housing and identifies a number of key barriers limiting or preventing its adoption. The results of the research are a set of specific recommendations and strategies that municipalities can use to overcome barriers to expanding this form of housing in residential neighbourhoods.

PURPOSE AND METHODOLOGY

The purpose of the research was to make this type of housing more familiar to municipalities, housing professionals and the general public. This was accomplished by documenting the current practice of laneway-oriented infill in several Canadian jurisdictions, and providing an overview of the specific opportunities and challenges, using detailed case studies and the results of a spatial analysis and design study, of two Vancouver neighbourhoods.

These opportunities are synthesized with the results of a professional workshop on laneway infill housing (where the preliminary findings of this research were presented), into a set of recommendations, specific actions and policy strategies that Canadian municipalities can use to expand this form of infill housing.

LITERATURE REVIEW

With the imperative for more compact communities with greater housing choice, laneway infill housing is re-emerging as a form of housing that can help achieve a number of sustainability objectives through gradual intensification of existing residential and mixed use areas. The review of the relevant literature shows that laneway housing:

- Was an intentional and useful part of the 19th century city, creating density and porosity, maximizing land-use efficiency, providing housing for workers, reducing street congestion and providing for the distribution of goods and services.
- Is suitable for a wide range of uses, from home offices and artist studios to accessory suites.
- Supports increased personal investment and commitment by property owners.
- Creates a more positive association of the "back alley."
- Creates opportunities for building architecturally distinctive and creative housing.
- Can encourage less car ownership by increasing residential densities around transit nodes, supporting more frequent service.

Canada

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HOME TO CANADIANS

Figure 1 Vintage laneway housing in Vancouver's west end

LANEWAY HOUSING IN VANCOUVER

The City of Vancouver has a long history of laneway housing dating back to the City's origins, when carriage houses and backyard infill houses were built to house workers and extended family. Many of these historic examples still exist today, along with a number of newer examples built over the last 30 years primarily as incentives for the preservation of heritage buildings on larger lots with minimum frontages of 15 m (50 ft.).

However, zoning permitting laneway infill is currently limited to a few Vancouver neighbourhoods and these neighbourhoods are becoming more or less built out, with the remaining sites being tighter and more difficult to develop under current zoning. Therefore, the development of new laneway infill housing in the city has slowed considerably, as permitting zoning has yet to be expanded to other neighbourhoods.

The City of Vancouver recently launched Eco-Density; a strategy for intensifying Vancouver's residential neighbourhoods and centres to support transit use, walking and greater housing affordability. Laneway infill housing is envisioned to be a key part of this initiative.

The City has developed a zoning schedule and set of associated guidelines that permits laneway infill on the smaller 10 m (33 ft.) wide lots which are typical to Vancouver. However, this new zoning has yet to be implemented in any Vancouver neighbourhood due primarily to a lack of resident support for this type of infill.

The range of historic and more contemporary built examples, along with the new zoning and guidelines for small lot, single-family housing, offer good siting, form and design precedents for this form of infill. The examples also show strategies for addressing servicing, parking, stormwater, qualitative aspects and other design challenges associated with laneway infill housing. Additionally, the existing zones and guidelines regulating laneway infill offer examples of enabling regulatory approaches.

HOUSING FORUM AND LANEWAY HOUSING WORKSHOP

On October 31, 2006, a workshop on laneway infill housing was held as part of the "Affordability by Design" housing conference, put on by Smart Growth BC, the Vancouver City Planning Commission, Simon Fraser University's City Program, and Canada Mortgage and Housing Corporation.

A range of housing sector professionals and other stakeholders attended the workshop. They identified barriers and opportunities for overcoming them based on their experiences with various forms of small-scale infill.

Participants noted that laneway infill can create market-rate affordability by introducing a product to the market that has a smaller square footage and is located fronting a lane (considered to be less desirable than the principal dwelling).

However, because the market will determine the price, laneway homes could also be expensive. Other considerations will also be needed, however, such as incentives and agreements that ensure affordability. For example, Kelowna has created a housing agreement to ensure rental affordability for new laneway housing where significant variances to the zoning bylaws and development guidelines are granted.

Participants noted that laneway-oriented infill housing offers a number of tenure options including rental, strata and fee-simple. Fee-simple laneway infill has a number of barriers, including providing servicing down the lane, and the need to have an address on the laneway, which is currently prohibited as laneways are not regarded as providing reliable fire access.

Current parking requirements were also identified as a considerable barrier to expanding laneway housing. It was suggested that these requirements need to be re-examined within the context of urban sustainability as set out in the City's Eco-Density initiative. Other key barriers to expanding this form of infill include building codes and local resident opposition.

Strategies for overcoming barriers and expanding laneway infill housing included looking at new approaches (different from the existing Community Visioning Process used in Vancouver) to structuring and carrying out local resident decision-making processes. Participants suggested generating dialogue, awareness-building and buy-in through block-level discussions. These discussions could occur as block parties and other means of bringing local residents together around the issue of absorbing more growth and density.

Specific recommendations

Specific recommendations coming out of the workshop include:

- Laneway-oriented infill housing should be presented as a core component of the City's Eco-Density initiative.
- Laneway-oriented infill housing should be expanded to other parts of the city and encouraged on the small lots, for example with 10 m (33 ft.) frontages, typical of most single-family residential areas in Vancouver, particularly on corner lot locations where the rear infill unit can front and have an address on the flanking street.
- Parking requirements should be relaxed for laneway infill housing, particularly if it is located within 5–10 minute walking distance of a transit stop.
- The use of housing agreements registered on title that ensure long-term affordability should be explored and researched further to determine their applicability and viability for ensuring affordability in perpetuity.
- Laneways should be thought of as a unique part of the urban residential fabric. New housing forms with unique architectural expressions different from the traditional housing character on the principal residential streets should be explored and encouraged where desirable and appropriate.
- Laneway infill design guidelines should ensure some landscaping of the laneway by requiring small setbacks for a landscaped area adjacent to the lane. Minimum building separation between the principal dwelling and the laneway dwelling should provide sufficient space for a usable patio with some direct solar access and room for substantial landscaping.
- Parcels that develop infill should be required to absorb as much stormwater runoff generated by the increased surface coverage by using permeable pavers and other landscape materials, and by catching rainwater and using it for irrigation.
- Laneway infill houses should incorporate upper-storey balconies, including rooftop balconies, to provide outdoor private amenity space. Options for incorporating container gardening on rooftops and balconies should be explored for the infill unit and the main dwelling unit to provide options for gardening.

EXPANDING LANEWAY HOUSING IN OTHER B.C. MUNICIPALITIES

Kelowna

Kelowna has an established stock of laneway infill housing resulting from the laneway network and large lot sizes in the urban residential neighbourhoods, and the enabling policy and zoning permitting secondary suites in detached accessory buildings. As the City of Kelowna has 0.6 per cent vacancy rates, carriage houses are looked at by the municipality as an opportunity for increasing housing capacity, choice, and affordability.

Coquitlam

Coquitlam is another community undergoing rapid change and growth, and is facing a number of significant challenges with regards to housing capacity, choice and affordability. One of the options being explored by City staff is the introduction of laneway-oriented infill housing in neighbourhoods that have sufficiently large lots to accommodate an accessory dwelling and where there are lanes providing access to backyards.

Source (aerial photo): City of Vancouver

Figure 2 Laneway infill housing under zoning for larger lots (RT-8) in Vancouver's west end

Resident opposition to residential infill is a significant barrier to intensifying Coquitlam's residential neighbourhoods. Within this context, planning staff in Coquitlam see laneway infill as a considerable opportunity for increasing densities in established, single-family residential neighbourhoods in a way that won't significantly upset their character, as might result from other types of intensification involving redevelopment.

RECOMMENDATIONS

The analysis of Vancouver's and Kelowna's experience, in addition to the literature review on other Canadian examples of laneway housing, has shown that this housing type is a viable means of intensifying single-family neighbourhoods in communities facing rapid growth. However, despite the many good examples of this housing type that exist in communities across the country, laneway housing has not generally been realized in Canadian municipalities to its full potential.

Barriers include a lack of zoning in place permitting this form of infill and where it is in place, with some exceptions, it is very restrictive. Further, the approvals process is often complicated and time-consuming. The community engagement process has had limited success in generating support.

The study's authors propose the following recommendations in creating a path forward for municipalities wishing to introduce or expand this form of infill housing:

Policy Strategies

- The introduction and expansion of laneway infill housing into municipalities with laneway networks should be phased to build awareness and familiarity and to test design prototypes.
- As a first phase, municipalities should establish a series of pilot projects throughout the city to showcase different laneway infill housing typologies on different lot types and sizes.
- As a second phase, incorporate into the zoning by-laws a provision allowing all corner lots to develop an accessory dwelling fronting the flanking street.
- As a final phase, municipalities should incorporate laneway housing "by right" into their residential zoning bylaws, starting with corner lots where the rear infill unit can front the flanking street. This will require a new set of guidelines for residential uses specifically applicable to siting accessory dwellings on a laneway, including a detailed set of criteria for assessing privacy, access, overlook, servicing, parking, overall livability and other factors, and a working definition of "laneway."

Technical Aspects

- Eliminate or significantly reduce off-street parking requirements for new infill housing, particularly for infill housing located within a 10-minute walk of a major transit stop.
- Clarify reliable fire access requirements for access to accessory buildings in backyards from the fronting street and incorporate them into the zoning bylaw and guidelines. For example, a 1 m (3 ft.) unobstructed, fire-access corridor to the rear of lots may be considered sufficient for fire and emergency service access. Further, the current status of laneways as not constituting reliable fire access should be reviewed to determine if laneways could provide reliable access.
- Incorporate side-yard covenants into the zoning bylaws to allow two adjacent properties to have a shared, unobstructed side-yard where their individual side yards are not sufficiently wide to allow reliable fire access.
- Careful consideration must be given to the requirements of the public works department, which deals with the operational infrastructure of the City (sewage, water, garbage collection and so on) and the relation of uses and buildings to that infrastructure.

Approvals Processes

- Applicants should be kept abreast of any resident opposition early on, ideally prior to submission of the formal application, to allow them to respond to concerns early on in the review process.
- Regulations and guidelines should be interpreted more flexibly by City staff in order to respond to the unique context of each infill proposal to achieve the best possible project for all parties involved, rather then simply applying the guidelines universally for all projects.
- Regulatory processes related to infill should be streamlined by better integrating and coordinating review by various departments.
- Applicants should be able to participate in design reviews so as to better understand the recommendations and their rationale.

Source (aerial photo): City of Vancouver

Figure 3 Laneway infill housing on a small lot with a 10 m (33 ft.) frontage in an east Vancouver neighbourhood.

Figure 4 Small centre courtyard between principal and infill dwelling (see figure 3) provides communal space for gardening and sitting

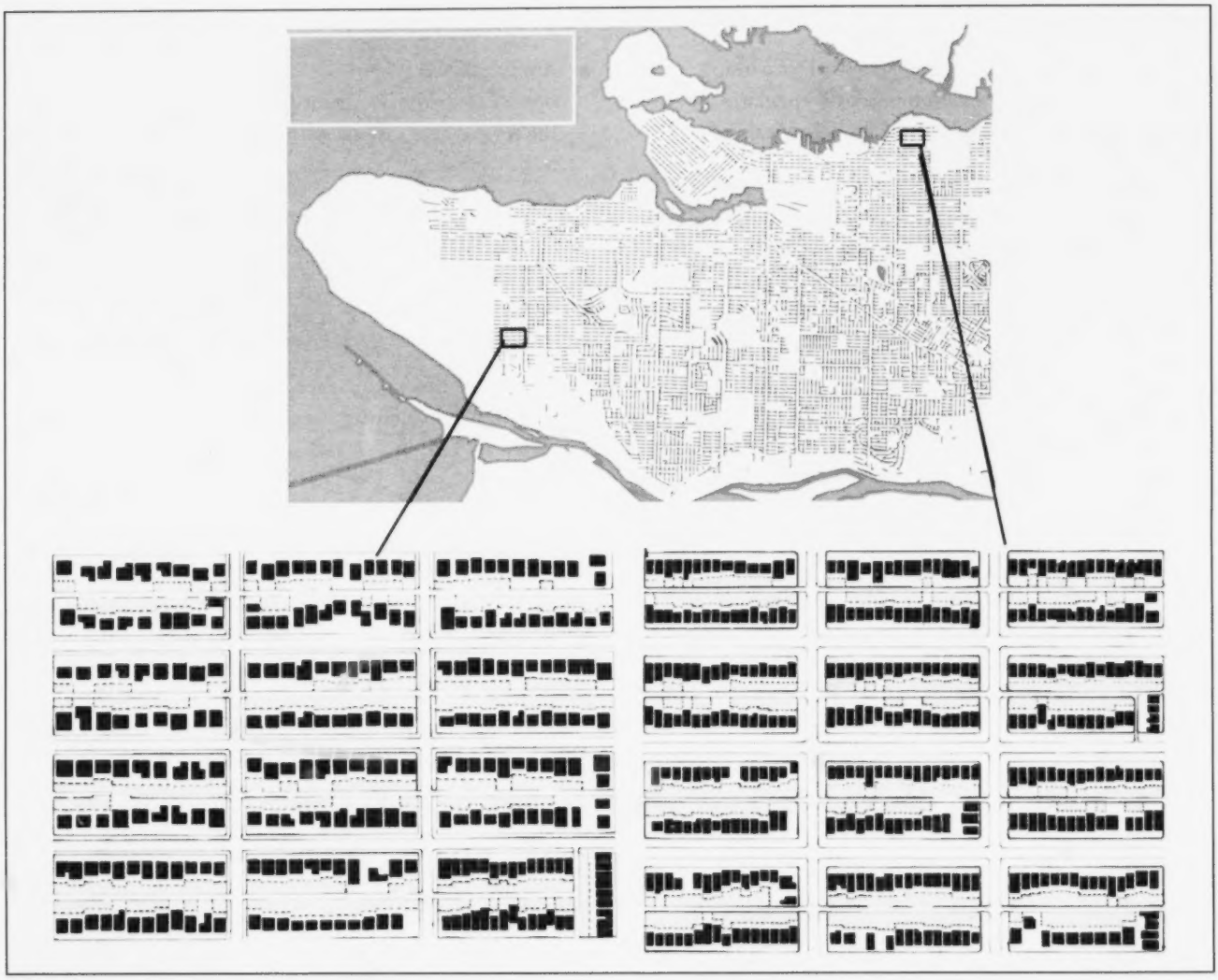

Figure 5 Vancouver's laneway network (top) and "figure ground" drawings showing existing dwelling footprints in black and infill opportunities in yellow in the west end neighbourhood of Dunbar (left) and the east side neighbourhood of Hastings/Sunrise (right).

Design Considerations

- Usable open space must be included in proposals to provide private outdoor amenity space.
- Screening of windows and balconies should be carefully placed to ameliorate overlook and privacy issues.
- Laneway housing proposals should consider the overall mass of the proposed building in relation to surrounding buildings and open spaces. There should be carefully proportioned facades with adequately sized openings and units of construction that relate the building to the viewer.
- Laneway infill design guidelines should ensure some landscaping of the laneway by requiring small setbacks for a landscaped area adjacent to the lane.
- Laneway infill projects should incorporate permeable pavers and other landscape materials, and include catching rainwater and using it for irrigation.
- Options for incorporating container gardening on rooftops and balconies should be explored for the infill unit and the main dwelling unit to provide options for gardening.

Awareness Building and Community Engagement

- Establish a laneway advocacy group to inform housing stakeholders, including the general public, about the benefits of laneway housing and how to maintain the existing scale and character of existing neighbourhoods.
- Create a laneway housing initiative as a declaration of intent to support this form of housing, and as a guide for acquiring approvals for and building this form of housing.
- Examples of successful laneway housing in Vancouver and other Canadian cities should be documented and published. This would help to establish form and siting precedents and a set of best practices for laneway housing to encourage homeowners, housing professionals and politicians to establish and expand laneway infill housing policies in their cities.
- Establish a framework for more locally-based decision-making regarding residential intensification and new housing types, for example at the scale of the block. A streamlined engagement process focusing on housing should be held frequently enough to inform and gauge residents' needs and desires as they change over time.
- Laneway-oriented infill housing should be presented as a core component of green neighbourhood strategies, such as Vancouver's Eco-Density initiative, as a means of increasing housing densities, choice, and affordability.

Affordability

- Eliminating or significantly reducing off-street parking requirements for new accessory infill dwellings would reduce the overall construction costs of new projects, thus increasing their affordability.
- Pre-fabricated housing prototypes and typologies should be explored to determine their feasibility for laneway-oriented infill housing as a means of reducing construction costs.
- The use of housing agreements registered on title that ensure long-term affordability should be explored and researched further to determine their applicability and viability for ensuring affordable laneway housing.
- Guidelines should allow infill design and construction that is simple and inexpensive to encourage the development of housing that is affordable.
- A set of laneway infill prototypes should be developed that are appropriate to the specific context of individual municipalities, along with easy-to-understand development and design guidelines, bylaws, and approvals processes to encourage homeowners to develop laneway infill projects on their own.

CONCLUSIONS

Laneway infill housing is a key tool municipalities can use as part of a larger residential intensification tool kit for creating more compact, walkable and inclusive neighbourhoods, while preventing encroachment onto greenfields.

However, despite the many good examples of laneway infill housing, uptake in Vancouver and other Canadian municipalities has been slow, primarily due to a lack of enabling zoning.

Where zoning is in place, it is restrictive and approvals can be time-consuming and complex. In contrast, Kelowna has adopted zoning that is more supportive of this form of infill. This has increased the supply of housing, including affordable rental housing, in this city.

One of the key barriers to the expansion of laneway housing and other innovative forms of infill is resident opposition and the resulting lack of political support. This suggests that the answers to intensifying low-density neighbourhoods lie in the dialogue with citizens regarding updating existing planning and decision making processes.

Update: City of Vancouver Adopts New Policy to Expand Laneway Housing

Vancouver City Council directed staff to conduct some public workshops and complete a discussion paper regarding issues and opportunities for expanding laneway housing. This was as a result of the several professional and public events including the Affordability by Design workshop that was a key piece of this study, along with studies completed by City Staff and the Vancouver City Planning Commission.

On October 28 2008, Vancouver City Council approved staff recommendations regarding the expansion of laneway infill housing to other single family areas in the city, specifically, the RS-1, RS-3, RS-3A, RS-5, RS-6 zones. The recommendations included allowing laneway infill on 10 metre (33 ft.) wide lots as recommended by this study. The recommendations also included limiting tenure-ship for laneway housing to rental, and not permitting strata. Council also directed staff to "further consult with the public, neighbourhoods and stakeholder groups including Visioning Committees, on the height, type and parking options" regarding laneway infill housing. Further, Council directed staff to prepare a timeline and process for the development of regulations for implementation of the recommendations.

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